

JNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Prough, et al.

Attorney Ref.:

2065.005A

Serial No.:

10/042,718

Group Art Unit:

1731

Filed:

July 16, 2002

Examiner:

To be assigned

Title: SYSTEM AND METHOD FOR IMPROVING THE MOVEMENT AND

DISCHARGE OF MATERIAL FROM VESSELS

To:

Commissioner for Patents Washington, D.C. 20231

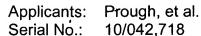
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56 AND 1.97

Dear Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, Applicant submits herewith the statement below and an Information Disclosure Citation identifying (1) an excerpt from a manual entitled Digester Update, 10th Edition (herein "the Digester Update") and (2) an excerpt from Rules for Construction of Pressure Vessels (herein "the Code") for consideration by the Examiner. No Office Action has yet been received for this application; therefore, this Statement is being timely filed and no fee is due therefor.

The Applicant submits that counterwash nozzles are recognized features of the art of continuous digesting of wood to make cellulose pulp. As illustrated in Figures 4.1 and 4.2 in the Digester Update, counterwash nozzles are typically positioned in the lower head of a continuous digester.

The Applicant hereby acknowledges that the Applicant has now discovered that certain existing continuous digester vessels include counterwash nozzles at a location in the lower head of a continuous digester that exceeds 80% of the outer diameter of the vessel. The Applicant has done research into the existing art of the placement of counterwash nozzles in continuous digesters. The Applicant has consulted Andritz Inc. of Glens Falls, NY - one of only two providers of continuous digester vessels in the



Attorney Ref.:

2065.005A

world. The Applicant has learned that Andritz Inc. has designed and built digester vessels having counterwash nozzles located at a position as much as 81.5% of the outer diameter of the vessel. Andritz informed the Applicant that these continuous digester vessels were built and operated more than one year prior to the filing of the parent provisional application 60/309,332 on August 2, 2001. The Applicant has also been in contact with representatives from International Paper Company (herein "IP") – one of the largest users of continuous digester vessels. IP has informed the Applicant that at one IP digester installation – the pulp mill in Augusta, Mississippi – counterwash nozzles are located at 83% of the outer diameter of the vessel. IP informed the Applicant that the digester vessel in August, Mississippi was built and operated more than one year prior to the filing of the parent provisional application 60/309,332 on

August 2, 2001. IP did not identify any installations having counterwash nozzles

positioned at a larger percentage of the outer diameter of the vessel.

The Applicant also submits herewith the Code in support of the Applicant's use of the term "knuckle" in the specification and claims of the present invention. The Code is published by the American Society of Mechanical Engineers and provides the accepted guidelines by which all pressure vessels are designed in the United States. In Appendix 1 on pages 315-320 of the Code, formulas are provide for designing formed heads, among other things. In the second column on page 316, the variable "r" is defined as the "inside knuckle radius, in.". An illustration of this radius r is shown in Figure 1-4(b) on page 317 of Appendix 1. Figure 1-4(b) clearly illustrates the inside knuckle radius "r" which is the radius of the transition between the radiused section of the head (having a radius "L") and the cylindrical "skirt" section of the head (having a diameter "D"). Thus, the Applicant submits that the term "knuckle" is a term of the art and is defined as the transition section between the radiused section and the cylindrical section of a formed head as illustrated in Figure 1-4(b) of the Code submitted herewith.

Applicants: Prough, et al. Serial No.: 10/042,718

Attorney Ref.:

2065.005A

Respectfully submitted,

John Pietrangelo Agent for Applicants

Registration No. 39,331

Dated: January <u>30</u>, 2003

HESLIN ROTHENBERG FARLEY & MESITI P.C.

5 Columbia Circle

Albany, New York 12203-5160 Telephone: (518) 452-5600 Facsimile: (518) 452-5579

| SUPPLEMENTAL INFORMATION DISCLOSURE CITATION (Vise several sheets if necessary) | | | | | | 2065.005A | | Application Number 10/042,718 | | |
|--|----------------------|-----------------|--|---|---|---------------------------------------|----------------------|-------------------------------|-----------------------------|----------|
| | INTC | ous Very | ATION DISCLOSURE Also several sheets if necessar of | ry) | | Applicant(s) Prough, et al. | | | | |
| FEB 0 6 2003 Figure several sneets if necessary) U.S. PA | | | | | | Filing Date 07/16/20 | | Group Art Unit To Be Assigned | | |
| ENT 8 | TRADE | MARY | 7 | | U.S. PAT | ENT DOCUMENTS | | | | |
| *EXAMINER INITIAL | REF | | DOCUMENT NUMBER | DATE | | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | _ | | | | | | | | |
| <u></u> - | | | | | | | | | | |
| - | | | | - | | | | | | |
| | | | | | - | · · · · · · · · · · · · · · · · · · · | | | | |
| | e = - / | | | | - | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | .,,, |
| | | | | | | | | | | |
| | | | | | | W | | | | ü |
| FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
| | REF | DOCUMENT NUMBER | | DATE | | COUNTRY | CLASS | SUBCLASS | Translation YES NO | |
| | | | | | | | | | | |
| | | | | | <u> </u> | | | | | |
| | | | | | | | | - | | |
| | | | | | - | | | | | |
| | | | | | | | | | | |
| | | | | | OTHER I | OCUMENTS (Include | ing Author, Title, D | ate, Pertinent Pa | ges, Etc.) | |
| | (| ec | Ahlstrom Machinery Inc.,title page and pp. IV-1, IV-2, V-16, and V-17 from manual entitled "Digester Update, 10th Edition", 5 pp., April 1999. | | | | | | | |
| | (| CD | The American Society of Pressure Vessels", 9 pp., | Mechanical En 1999 Addenda, | tle page and pages v, vi, and 315-320 from "Rules for Construction of 99. | | | | | |
| EXAMINER | | | | | | DATE CONSIDERED | | | | |
| EXAMINER tot consider | l: Initia ed. Inc | l if c | itation considered, whether o copy of this form with next c | r not citation is in ommunication to | conformanc | ee with MPEP Section 609 | 9; Draw line throu | gh citation if not | in conform: | ance and |

Form PTO-A820 (also form PTO-1449)

P09A/REV04

Patent and Trademark Office * U.S. DEPARTMENT OF COMMERCE